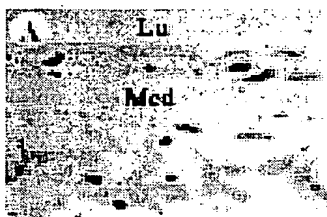
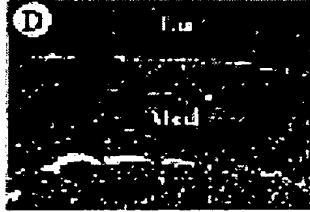
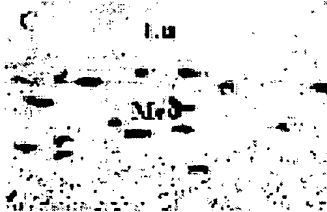
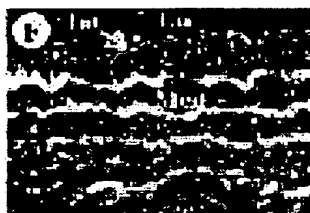
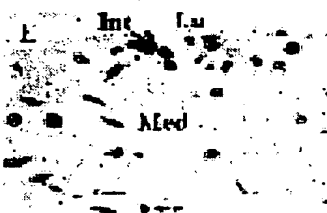
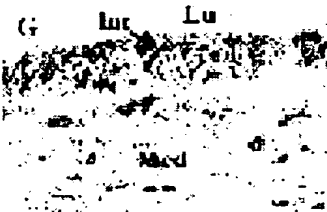


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FIG.1

Light field view

Dark field view

ER α - 15 minsER β - 15 minsER α - 7 daysER β - 7 days

09719658.052504

09719658 052501

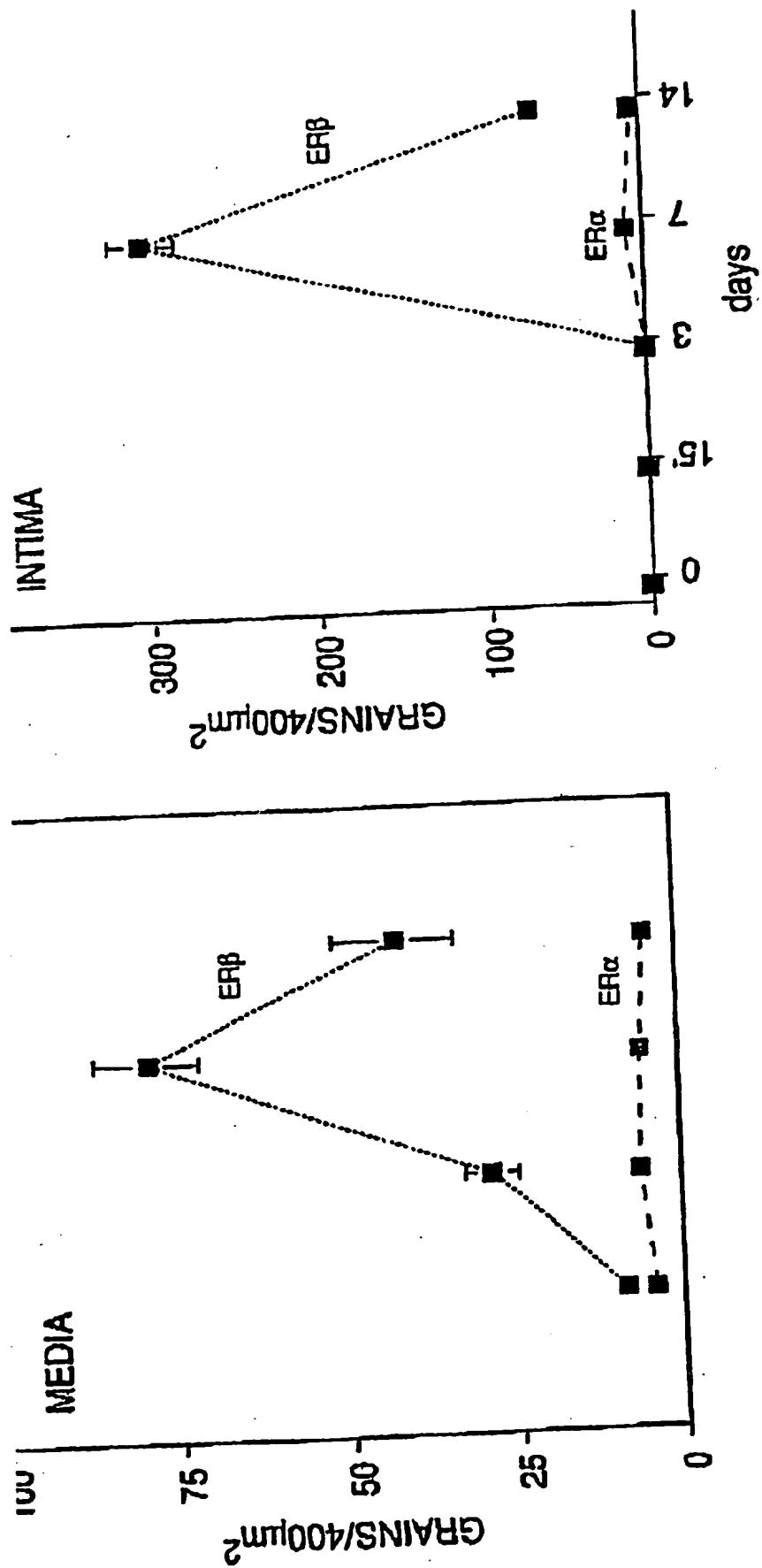
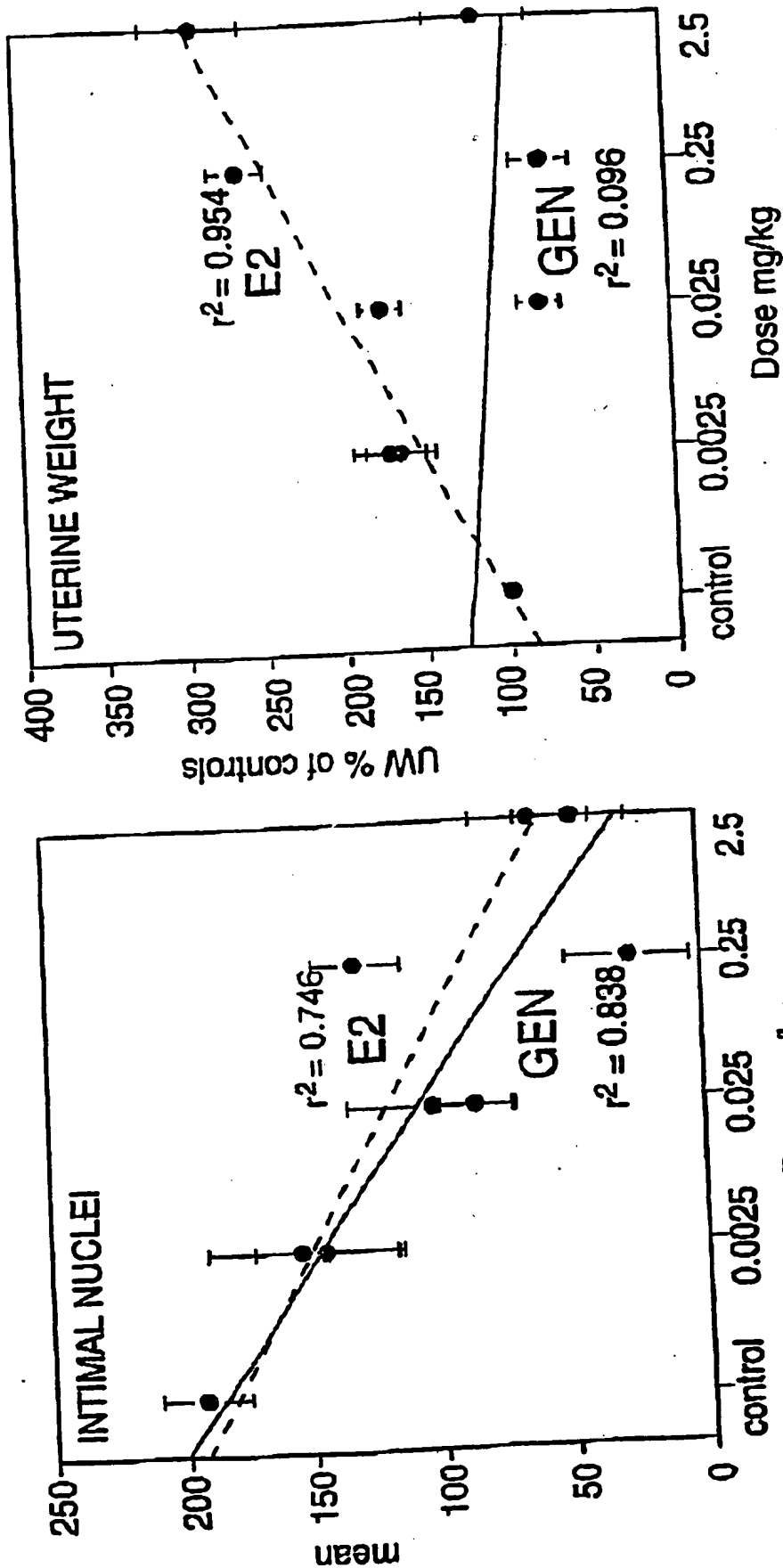


FIG.2



Binding affinity K_i (nM) of 17α estradiol and genistein to $ER\alpha$ and $ER\beta$ is, respectively, 0.13 and 0.12 for E2 and 2.6 and 0.3 for GEN.

FIG. 4

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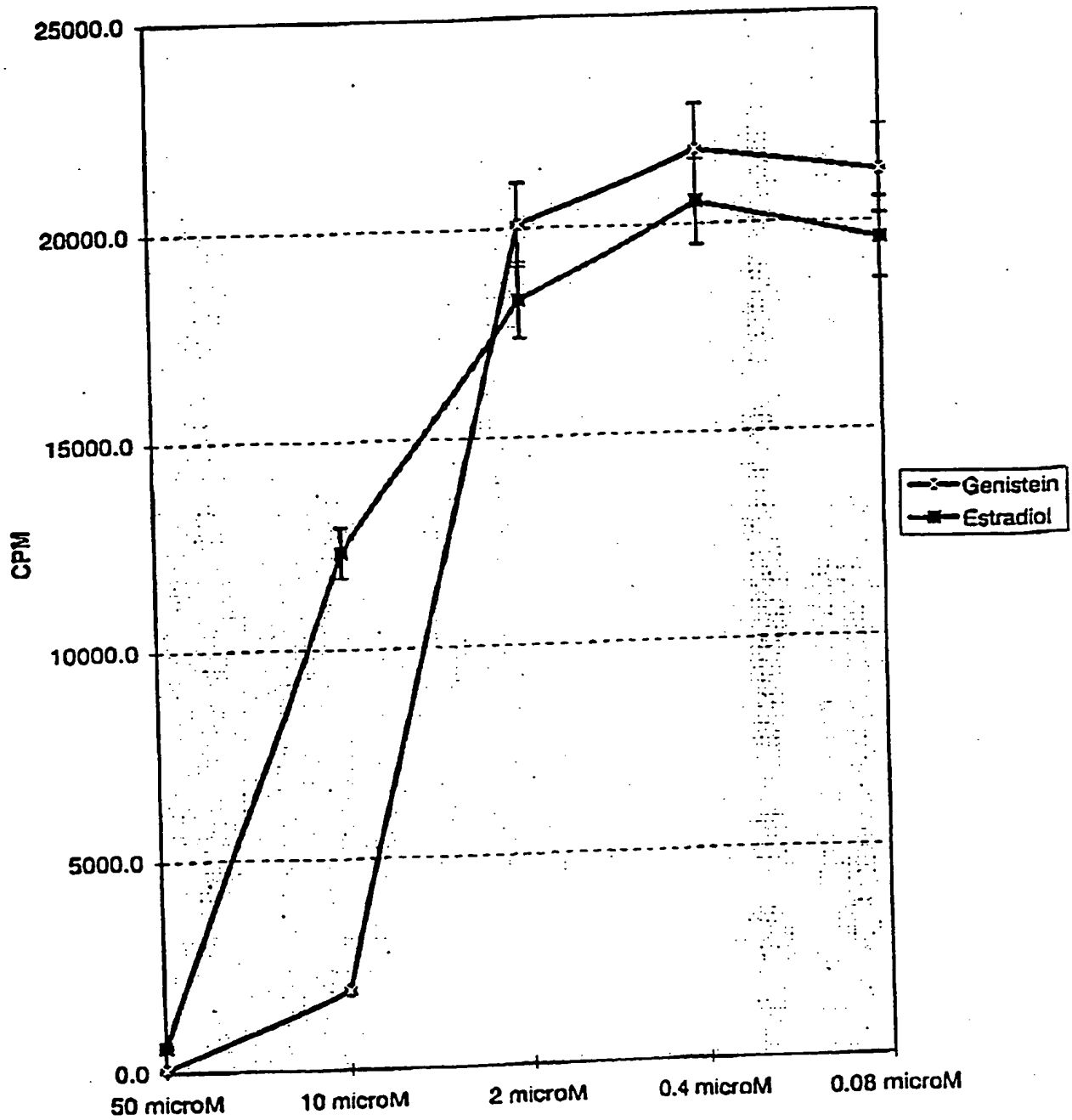


FIG. 5

Species	Antigen	Antibody	Antigen	Antibody	Company	Reference
Rabbit	Rat, human	IHC 10ug/ml IP	Synthetic peptide aa. 54-71 of rat, mouse. Aa. 46-53 of human.	06-529	Upstate biotechnology	Enmark, E. L., et al., Proc. Natl. Acad. Sci. USA 83: 5925-5930, 1986. Byers, M., et al., Mol. Endo. 11: 172-182, 1997
MoAb	Human, bovine, rat, mouse	IHC 1:50-1:100 IP WB 0.5-2ug/ml	Purified, SDS-denatured calf uterus ER-receptor	05-394	Upstate biotechnology	Evans, R. M., Science 240: 899-895, 1988. Green, S., et al., Nature 324: 615-617, 1986.
MoAb	human mouse	IHC 1:40-1:60 Flowc. WB 1:50-1:100	Procarcylotic recombinant protein corresponding to the full-length alpha form of the ER-receptor molecule.	NCL-ER-6F (NovoCastr)		Bevitt, D. J., Piggot, N., et al., New monoclonal antibodies to oestrogen and progesterone receptors effective for paraffin section IHC. Journal of Pathology. 183: 228-232, 1997. Clark, G. M., McGuire, W. L., The clinical usefulness of oestrogen-receptor and other markers of hormone dependence. Proceedings of the Royal Society of Edinburgh. 95B: 145-150, 1989. Henry, J. A., Angus, B., Home, C. H. W., Oestrogen receptor and oestrogen regulated proteins in human breast cancer: a review. KEIO Journal of Medicine. 38: 241-261, 1989. Shintaku, P., Said, J. W., Detection of oestrogen receptors with monoclonal antibodies in routinely processed formalin-fixed paraffin sections of breast carcinoma. American Journal of Clinical Pathology. 87: 161-167, 1987.
MoAb	human	IHC 1:50-1:75 WB	N-term. domain of the receptor (A/B region)	M 7047	DAKO	Kumar, V., et al., Functional domains of the human oestrogen receptor. Cell 51: 841-51, 1987.
Rabbit	Rat mouse	IHC 5-10ug/ml WB 1ug/ml	rat peptide COOH-terminal aa. 467-485	PA1-310 PEP-007	ABR	Sannino, P., Shousha, S., Demonstration of oestrogen receptors in paraffin wax sections of breast carcinoma using the monoclonal antibody 1D5 and microwave oven processing. J. Clin. Pathol. 47: 80-2, 1994.
Rabbit	Rat mouse	IHC 1:2ug/ml WB 1-2ug/ml	rat peptide NH2-terminal aa. 55-70	PA1-311 PEP-011	ABR	Li, X., Schwartz, P. E., Rissman, E. F., Distribution of oestrogen receptor-beta-like immunoreactivity in rat forebrain. Neuroendocrinology 66: 63-67, 1997.
MoAb	Human Rat	IHC 5ug/ml IP 5ug/ml WB 5 ug/ml (1ug/ml)	human peptide DNA-binding domain aa. 247-261	MA1-310 PEP-013	ABR	Alves, S. E., et al., Differential colocalization of oestrogen receptor beta with oxytocin and vasopressin in the paraventricular and supraoptic nuclei of the female rat brain: An immunocytochemical study. Proc. Natl. Acad. Sci. USA 95(6): 3281-3286, 1998. Traish, A., et al., Development and characterization of monoclonal antibodies to a specific domain of human oestrogen receptor. Steroids 55: 196-208, 1990.